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Labour Account Australia, Experimental Estimates methodology

Reference period 2015-16

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Explanatory notes

Introduction

1 The purpose of the Australian Labour Account is to support macro-economic analysis requiring data on peoples' participation in paid employment and related production over time. Its development provides an opportunity to significantly improve the quality of aggregates such as the number of jobs occupied within each industry, measures of hours worked, and labour productivity growth.

2 The concepts and definitions underlying the Australian Labour Account are built on International Labour Organisation (ILO) fundamentals, and expands them to ensure consistency with the System of National Accounts (SNA08). The result provides a set of core macro-economic labour market variables derived through data integration, with both an industry focus and time series dimension.

3 The Australian Labour Account does not include analysis of persons, jobs, hours and payments by age or gender, as for most policy purposes these needs are adequately met from the existing Labour Force Survey, labour demand business surveys and Census

publications produced by the ABS.

Output

4 The Australian Labour Account, in essence, is a system for compiling a set of core labour market statistics from existing data. The output is a set of tables that provide a systematic and consistent view of the core variables over time.

5 Labour Account statistics are arranged in four "quadrants": Jobs, Persons, Labour Volume and Labour Payments.

6 The Australian Labour Account consists of eleven sets of tables. Data in each table are available annually, for the economy as a whole and for the 19 industry divisions recognised in the Australia and New Zealand Industrial Classification (ANZSIC).

- Table 1: Balanced Summary Table
- Table 2: Balanced Jobs Table
- Table 3: Balanced Persons Table
- Table 4: Balanced Labour Volume Table
- Table 5: Balanced Labour Payments Table
- Table 6: Balanced Summary Tables - Industry Division by Financial Year
- Table 7: Balanced Detailed Tables - Industry Division by Financial Year
- Table 8: Balanced Summary Tables - Financial Year by Industry Division
- Table 9: Balanced Detailed Tables - Financial Year by Industry Division
- Table 10: Unbalanced Detailed Table
- Table 11: Unbalanced Detailed Tables – Industry Division by Financial Year

7 In the compilation process, residual differences remain between the estimated number of filled jobs based on business sources and those derived from household sources. These differences remain after making adjustments for known conceptual and scope differences. They represent measurement error in the respective sources, and are reflected in the "statistical discrepancy" series highlighted in the "unbalanced" tables. In the balanced tables, separate business and household estimates have been replaced by a single "filled jobs" estimate. Consequent adjustments are also made to estimates of employed persons, hours worked and hours paid for. The harmonised, or "balanced", filled jobs series are based on a more detailed industry by industry investigation of the underlying sources of measurement error. This process is ongoing, and the balanced tables reflect the current state of this work. Affected series are likely to be subject to further revision.

8 It is important to note that measurement error refers to the unavoidable sampling, non-sampling and modelling uncertainty, rather than a mistake or omission.

Conceptual scope

9 Accounting conventions are necessary to define the scope and treatment of activities that occur within the economy. The production and residency conventions adopted in the Australian System of National Accounts (ASNA) are used in the Australian Labour Account to determine the scope of activities covered, and the size of the economy measured.

10 The scope of the Australian economy defined by these conventions embraces the activities of all enterprises resident within Australia's economic territory engaged in the production of goods and services, which fall within the scope of the National Accounts production boundary. The Labour Account relates to the employment of all persons in jobs created by those enterprises. In this context:

- an enterprise is a productive undertaking maintained and controlled by one or more households, corporations or "quasi-corporations" that are resident in Australia's economic territory, Enterprises include (for example):
 - businesses operated by unincorporated self-employed trades persons,
 - family operated farms,
 - large corporations such as the major commercial banks and supermarket chains,
 - Government departments and agencies like Centrelink and the ATO, and
 - schools and hospitals operated by the state, or by religious organisations and charities.
- the National Accounts production boundary embraces the production of all goods and services, with the exception of services produced by household controlled enterprises solely for consumption by the household itself. This exclusion relates to (for example) the cooking of meals for household members, household washing and cleaning and care of dependents. However, the "shelter services" provided by owner occupied dwellings are included within the production boundary.
- Australian economic territory includes all geographies under the control of the Australian Government, i.e. the Australian mainland, off-shore islands, Antarctic territories, Australian embassies and military establishments in other countries, and Australia's exclusive maritime economic zone. It excludes foreign embassies and military establishments in Australia.
- an enterprise is considered "resident" if the "economic interest" of its controlling institutional unit (household, corporation or quasi-corporation) is centred in Australian economic territory.

Framework

11 The main objective of the Australian Labour Account framework is to incorporate labour

input aggregates (persons, jobs, hours) which describe supply and demand in the labour market, as well as labour related payments (as income and as costs). The framework covers all types of employment including employees, self-employment and contributing family workers.

12 The Australian Labour Account provides a conceptual framework through which existing labour market data from different sources can be confronted and integrated, with the aim of producing a coherent and consistent set of aggregate labour market statistics.

13 The Australian Labour Account framework has been designed to conceptually align with the ASNA framework. This enhances compatibility with national accounts and productivity estimates.

14 Household side and business side data are confronted to help identify and address gaps and inconsistencies in the source data sets.

15 Data confrontation is the process of comparing data that has generally been derived from different surveys or other sources, especially those of different frequencies, in order to assess their coherency, and the reasons for any differences identified.

16 The Australian Labour Account framework has four distinct quadrants: Jobs, Persons, Labour Volume and Labour Payments. The four quadrants are linked by a set of identity relationships, which the aggregate statistics must satisfy.

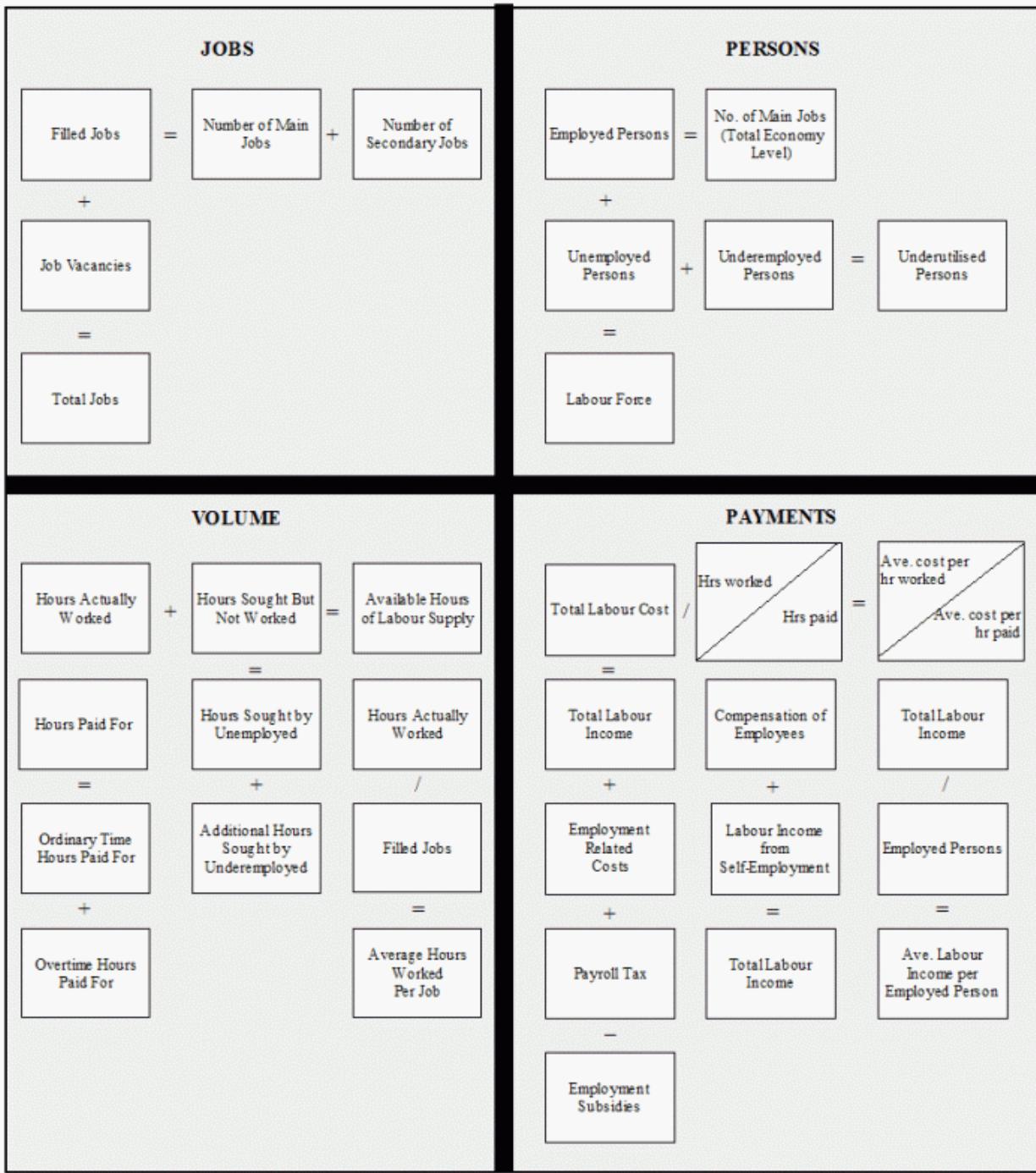
17 Some relationships in the framework are direct:

- Employed Persons = Number of Main Jobs (at the total economy level)

18 Other relationships are considered indirect, such that the relationship is based on an average or ratio measure:

- Average Hours Worked per Job = Hours Actually Worked/Filled Jobs

Australian Labour Account: Identity Relationship Diagram



Scope adjustments

19 Adjustments for scope and conceptual differences between data sources are required in compiling the Australian Labour Account..

20 Scope adjustments are made in each of the four quadrants in the Australian Labour Account to ensure coherence.

21 Filled Jobs (business sources) is mainly based on summing estimates from two different business surveys. Data from a third source is added to account for employment in an industry division that was outside the scope of the primary sources. The following scope

adjustments are made:

- add the number of persons from known industries excluded from primary business survey sources,
- add the number of persons employed in the permanent defence forces,
- add the number of unpaid contributing family workers,
- add the number of child workers who do not work for an employer as they are excluded from business surveys, and
- subtract the number of persons from specific industry subdivisions duplicated in primary sources to avoid double counting.

22 Scope adjustments made in one quadrant may be applied to another quadrant, and flow through to a third quadrant, based on the identity relationships.

23 Filled Jobs (household sources) is based on the number of jobs held by people employed in main jobs and secondary jobs sourced from the LFS, which is a household survey. Scope adjustments made to Filled Jobs (household sources) were similar to those made to Filled Jobs (business sources), to align the employed person estimates from the LFS with production boundary and residency concepts present in the business surveys. The following scope adjustments are made to Filled Jobs (household sources) to address LFS scope exclusions:

- add the number of persons employed in the permanent defence forces,
- add the number of child workers,
- add the number of main jobs held by non-resident visitors to Australia, and
- add the number of secondary jobs held by non-resident visitors.

Jobs

24 A job is a set of production related tasks that can be assigned to and undertaken by a person, and for which they are usually, but not necessarily, remunerated either in money or in kind. Jobs are created by enterprises. A "filled job" exists where an enterprise establishes explicit or implicit employment contracts with individual persons to undertake the job. Estimates of movements in the number of jobs in the economy provide a measure of labour market performance and capacity.

25 Defining a job is difficult. In the language used in national accounts, a job is an economic activity through which people engage in production. However, a dictionary definition is perhaps easiest to comprehend: a task or piece of work, especially one that is paid.

26 In the context of the Australian Labour Account, a job is a set of production related tasks

that can be assigned to and undertaken by a person, and for which they are usually, but not necessarily, remunerated either in money or in kind.

27 The Jobs quadrant in the identity relationship diagram provides data on the number of jobs, both filled and vacant, including the number of main jobs and the number of secondary jobs.

28 In the "Balanced" Labour Account tables, employment estimates from business surveys are reconciled with employment estimates from household surveys to produce a single harmonised Filled Jobs time series. Detailed information on data sources and methods used to compile Jobs data is in the ABS companion publication Australian Labour Account: Concepts, Sources and Methods (cat. no. 6150.0).

Persons

29 The size of the labour force is a measure of the total number of people in Australia who are willing and able to work. It includes everyone who is working or actively looking for work - that is, the number of people employed and unemployed together as one group.

30 The official measure of the population of Australia is based on the concept of usual residence. This concept refers to all people, regardless of nationality, citizenship or legal status, with some exceptions. By convention, persons are considered to be "usually resident" if they have been or intend to remain in Australia for at least 12 out of 16 consecutive months.

31 The scope of the population in the Australian Labour Account includes all persons who contribute to Australian economic activity (as defined by the production and territory conventions of the ASNA), irrespective of their residency status.

32 There is not always a one-to-one relationship between jobs and people, insomuch as a job can be vacant, or one person can have more than one job. Therefore, the number of jobs in an economy will be greater than the number of persons employed.

33 Industry estimates for the unemployed population are based on industry of last job worked (within the last two years) from the Labour Force Survey, and do not necessarily equate to the industries in which the unemployed are currently seeking work, nor do they include those who have never held a job previously. As such, care should be exercised when interpreting estimates of unemployed persons (and therefore the total labour force) on an industry basis.

34 The Persons quadrant provides statistics on persons employed, persons looking for and available for employment, and persons with potential for further employment. Detailed information on data sources and methods used to compile Persons data is in the ABS companion publication [Australian Labour Account: Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0>) (cat. no. 6150.0).

Labour volume

35 The Labour Volume quadrant describes the relationship between the hours of labour that are supplied by individuals and the hours of labour that are used or demanded by enterprises. It quantifies the number of hours worked by persons in all jobs. These data have a direct link to National Accounts and productivity statistics, as they are measures of labour input used in the production of goods and services.

36 Measuring changes in the level of hours worked for different groups of employed persons is important in order to monitor working and living conditions, as well as analysing economic cycles. Information on hours of work enables various analytical insights such as: classification of employed persons into full-time and part-time status; the identification of underemployed persons; and the creation of aggregate monthly hours worked estimates.

37 The Labour Force Survey is the primary source for household side hours worked data. Statistics relating to hours paid are based on business survey data, namely the ABS Survey of [Employee Earnings and Hours, Australia](https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/employee-earnings-and-hours-australia/may-2018) (<https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/employee-earnings-and-hours-australia/may-2018>) (cat. no. 6306.0). Detailed information on data sources and methods used to compile Labour Volume data is in the ABS companion publication [Australian Labour Account: Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0>) (cat. no. 6150.0).

Derived items

38 The annual Average hours worked per job item is derived by using a flow measure (hours actually worked) divided by a stock measure (annual average level of filled jobs). Users are advised to take account of conceptual and scope differences when comparing these data with other estimates measured at the same point in time, such as average weekly hours.

Labour payments

39 The Labour Payments quadrant accounts for the costs incurred by enterprises in employing labour and the incomes received by people from their labour provision. It can be described as the cost of labour, and reflects the interactions between jobs, persons and labour volume (hours worked).

40 The measure of total labour costs is based on the concept of labour as a cost to employers and includes wages and salaries, employers' social contributions (typically superannuation and/or social insurance payments), and all other general employee costs borne by the employer such as training costs, use of recruitment services, payroll tax and so on. Any government subsidies, rebates or allowances for wage and salary payments paid to employers are deducted from employers' labour costs.

41 Labour Payments data are primarily sourced from underlying data from two ABS National Accounts publications: [Australian System of National Accounts \(https://www.abs.gov.au/statistics/economy/national-accounts/australian-system-national-accounts/2018-19\)](https://www.abs.gov.au/statistics/economy/national-accounts/australian-system-national-accounts/2018-19) (cat. no. 5204.0) and the [Australian National Accounts: National Income, Expenditure and Product \(https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release\)](https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release) (cat. no. 5206.0). Detailed information on data sources and methods used to compile Labour Cost data is in the ABS companion publication [Australian Labour Account: Concepts, Sources and Methods \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (cat. no. 6150.0).

Derived items

42 The annual Average labour income per person item is derived by using a flow measure (total labour income) divided by a stock measure (annual average level of employed persons). As such, users are advised to take account of conceptual and scope differences when comparing these data with other annual estimates measured at the same point in time, such as average weekly earnings.

Sources of error

43 After adjusting for conceptual and scope differences between data sources, a statistical discrepancy remains between the number of filled jobs as reported by businesses and the number of filled jobs as reported by households.

44 These discrepancies represent the cumulative impact of data source error, including survey error and modelling error. Survey error includes both sampling error and non-sampling error.

45 Sampling error is the predictable variability arising from the use of samples, rather than a complete enumeration of the populations of enterprises and households (i.e. a census). It refers to the difference between an estimate for a population based on data from a sample

and the 'true' value for that population which would result if a census were taken.

46 Non-sampling error is caused by factors other than those related to sample selection. Non-sampling error can happen at any stage of a survey and can occur in non-survey data sources. An example of non-sampling error could be missing data or misclassification in government administrative records used directly in the Australian Labour Account. Error could occur in the industry classification of sponsored visa holders, or in the reported number of persons in the permanent defence forces.

47 Modelling error reflects errors embedded in the modelling assumptions used in the Australian Labour Account, for example in assuming that the proportion of children aged under 15 years who work has remained constant since 2006, or in assuming that quarterly [Business Indicators, Australia \(<https://author.absweb.aws.abs.gov.au/statistics/economy/business-indicators/business-indicators-australia/latest-release>\)](https://author.absweb.aws.abs.gov.au/statistics/economy/business-indicators/business-indicators-australia/latest-release) (cat. no. 5676.0) employment movements accurately reflect quarterly change in the latest available annual data.

Balancing the Australian Labour Account

48 In compiling the Labour Account, residual differences remain between the estimated number of filled jobs based on business sources and those derived from household sources. These differences remain after making adjustments for known conceptual and scope differences. They represent measurement error in the respective sources, and are reflected in the "statistical discrepancy" series highlighted in the "unbalanced" tables. In the balanced tables, separate business and household estimates have been replaced by a single "filled jobs" estimate. Consequent adjustments are also made to estimates of employed persons, hours worked and hours paid for. The harmonised, or "balanced", filled jobs series are based on a more detailed industry by industry investigation of the underlying sources of measurement error. This process is ongoing, and the balanced tables reflect the current state of this work. Affected series are likely to be subject to further revision.

49 Two general observations about source data quality are relevant to balancing the estimate of number of filled jobs:

- household side estimates of the number of filled jobs (i.e. LFS data) are considered more reliable at a total economy level, and
- business side data are considered more reliable in estimating the distribution of jobs across industries.

Balancing process (Jobs quadrant)

50 The following steps were taken to balance estimates of filled jobs in the Australian Labour Account.

- Each industry was balanced individually to either the business or household side. This choice was made on the basis of known measurement issues on either side with particular industries, or on the basis that movements on the business or household side were more coherent with other available indicators. Owner Managers of Unincorporated Enterprises (OMUEs) from the Labour Force Survey were also assumed to be misreported and moved to a different industry, if there were no corresponding estimates of Gross Mixed Income on the business side.
- The most recent business side annual estimates, for most industries, are based on data which has been extrapolated from an annual benchmarked level from 2014–15. Some minor discretionary adjustments were made to 2014–15 and 2015–16 to bring growth rates in jobs more in line with other indicators, such as Compensation of Employees and Gross Value Added.
- Annual Labour Account estimates of filled jobs were then balanced to household sources side at the total economy level.
- After balancing the total economy to the household sources side, some industries required further minor discretionary balancing adjustments to bring growth rates in jobs back in line with other available indicators in 2015–16.
- There were unusually high or low ratios of hours worked to hours paid for exhibited by some industries. Some hours paid for were adjusted across all 19 industries to rectify this, however total hours paid for at the total economy level was not changed.

Adjustments to other quadrants

51 Adjustments made to filled jobs through this process have flowed through to two other quadrants in the Australian Labour Account: Persons and Labour Volume.

52 The number of employed persons was adjusted proportionally with adjustments to filled jobs, after taking account of the level of multiple job holding in the particular industry.

53 Any adjustments made to filled jobs on the household side had a corresponding adjustment to the number of hours worked. This adjustment was calculated by multiplying the adjustment to filled jobs, by the average hours worked in each industry.

54 Any adjustments made to filled jobs on the business side had a corresponding adjustment to the number of hours paid for. This adjustment was calculated by multiplying the adjustment to filled jobs, by the average hours paid for in each industry.

Related products and publications

55 For those who are less familiar with national accounts, as well as other newcomers to the field of national accounting, the United Nations provides an introduction to some basic concepts and structures of the SNA National Accounts: A Practical Introduction. This information is freely available from the UN Statistic Division web site. [https://unstats.un.org/unsd/publication/SeriesF/seriesF_85.pdf] (https://unstats.un.org/unsd/publication/SeriesF/seriesF_85.pdf)

56 Eurostat, the statistical office of the European Union, provides similar introductory information on national accounts with its Building the System of National Accounts website [http://ec.europa.eu/eurostat/statistics-explained/index.php/Building_the_System_of_National_Accounts] (http://ec.europa.eu/eurostat/statistics-explained/index.php/Building_the_System_of_National_Accounts) as does the OECD's Understanding National Accounts (http://www.oecd-ilibrary.org/economics/understanding-national-accounts_9789264027657-en) (http://www.oecd-ilibrary.org/economics/understanding-national-accounts_9789264027657-en)

57 Detailed information on the Australian System of National Accounts is available in the ABS publication [Australian System of National Accounts: Concepts, Sources and Methods](https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/8AC0D9921051E17BCA2570B300807D36?OpenDocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/8AC0D9921051E17BCA2570B300807D36?OpenDocument>) (cat. no. 5216.0).

58 Detailed information on the Australian Labour Account is available in the ABS publication [Australian Labour Account: Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0>) (cat. no. 6150.0).

59 Detailed information on the labour force and labour force statistics is available in the ABS publication [Labour Statistics: Concepts, Sources and Methods](https://www.abs.gov.au/AUSSTATS/abs@.nsf/productsbyCatalogue/B67163F76A9C2F4ECA257B63002928D0?OpenDocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/productsbyCatalogue/B67163F76A9C2F4ECA257B63002928D0?OpenDocument>) (cat. no. 6102.0.55.001).

Glossary

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Additional hours sought by underemployed

Additional hours sought by underemployed refers to the number of additional hours part-time employed persons would prefer to work and are available for, and the number of

hours not worked by full-time employed persons for economic reasons.

Adjustments to employed persons

Adjustments to employed persons are the additions and deductions made to align the scope of the Labour Force Survey with Australian System of National Accounts residency.

Additions are made for:

- persons working in the permanent defence forces;
- non-residents (short term visitors) living in Australia and employed by Australian resident enterprises; and
- child workers.

Deductions are made for:

- Australian residents living in Australia employed by non-resident enterprises.

Adjustments to hours actually worked in all jobs

Adjustments to hours actually worked in all jobs are the additions and deductions made to hours worked to align the scope of the Labour Force Survey with Australian System of National Accounts residency.

Additions are made for hours worked by:

- non-residents (short term visitors) living in Australia and employed by Australian resident enterprises;
- child workers; and
- persons working in the permanent defence forces.

Deductions are made for hours worked by:

- Australian residents living in Australia employed by non-resident enterprises.

Available hours of labour supply

Available hours of labour supply refers to the total number of hours spent directly on and available to be spent on, and in relation to, productive activities. It is the aggregate of hours actually worked and hours preferred but not worked.

Average hours actually worked per job

Average hours actually worked per job is the hours actually worked divided by the number of filled jobs.

Average labour cost per hour paid

Average labour cost per hour paid is the total labour cost divided by hours paid for.

Average labour cost per hour worked

Average labour cost per hour worked is the total labour cost divided by hours actually worked in all jobs.

Average labour income per employed person

Average labour income per employed person is the total labour income divided by the number of employed persons.

Compensation of Employees

Compensation of Employees is defined as the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the employee (SNA 2008, para 7.5, ASNA 11.6). It is the value of entitlements received by employees from employers for services rendered. It is further classified into two sub components: Wages and salaries and Employers' social contributions.

Contributing family workers

Contributing family workers are persons who work without pay in an enterprise operated by a relative.

Employees

Employees are persons who work for a public or private employer and receive remuneration in wages, salary, a retainer fee from their employer while working on a commission basis, tips, piece-rates, or payment in kind. Employees are engaged under a contract of service (an employment contract) and take directions from their employer/supervisor/manager/foreman on how work is performed.

Employers' social contributions

Employers' social contributions are payments by employers which are intended to secure for their employees the entitlement to social benefits should certain events occur, or certain circumstances exist, that may adversely affect their employees' income or welfare – namely work related accidents and retirement.

Employment related costs to employers

Employment related costs to employers relates to other costs attributed to employees, such as training costs and recruitment costs.

Employment subsidies

Employment subsidies are any government wage subsidies an employer may receive.

Filled jobs

Filled jobs refer to all positions of employment that are currently filled (including self-employment). Filled jobs can be measured from either household sources (such as the Labour Force Survey), or business sources (such as the Economic Activity Survey).

Hours actually worked in all jobs

Hours actually worked in all jobs includes:

- all time spent directly on, and in relation to, productive activities;
- down time;
- time spent in addition to hours worked during normal periods of work (including overtime);
- time spent at the place of work on activities such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools, and the preparation of receipts, time sheets and reports;
- time spent at the place of work waiting or standing by due to machinery or process breakdown, accident, lack of supplies or power or internet access, etc.; and
- time corresponding to short rest periods (resting time) including tea and coffee breaks or prayer breaks.

Hours actually worked in all jobs excludes:

- hours paid for but not worked such as paid annual leave, public holidays or paid sick leave;
- meal breaks; and
- time spent on travel to and from work when no productive activity for the job is performed (even when paid by the employer).

For multiple job holders, actual hours worked includes the hours worked in all jobs.

Hours paid but not worked

Hours paid but not worked refers to hours associated with paid leave, such as annual leave, paid public holidays, paid sick leave and other paid leave.

Hours paid for

Hours paid for is the time for which payment has been received for award, standard or agreed hours of work (paid at normal or premium rates, in cash or in kind), regardless of whether the hours were actually worked or not.

Hours paid for:

- includes time paid but not worked such as paid annual leave, paid public holidays and certain absences such as paid sick leave; and
- excludes time worked but not paid by the employer, such as unpaid overtime, and absences that are not paid by the employer, such as unpaid educational leave or maternity leave that is paid through transfers by government from social security systems.

As such, hours paid for will differ from the number of hours actually worked if an employee works more or less hours than their paid hours. Hours paid for will also differ from usual hours in some cases, for example if an employee performs long hours in some weeks to have rostered days or weeks off. Hours paid for is the aggregate of ordinary time hours paid for and overtime hours paid for.

Hours sought but not worked

Hours sought but not worked refers to the number of hours a person would prefer to work and is available to work beyond the usual hours they do work. It is the sum of hours sought by unemployed, and additional hours sought by underemployed.

Hours sought by unemployed

Hours sought by unemployed refers to the number of hours an unemployed person would prefer to work and is available for.

Hours worked but not paid

Hours worked but not paid refers to unpaid hours worked. It is the time (hours) worked but not paid for by the employer, such as unpaid overtime, and absences that are not paid by the employer, such as unpaid educational leave or maternity leave that may be paid through transfers by government from social security systems.

Job sharing

A job with job sharing arrangements is a full-time job that is filled by employing two or more people working part-time to share the responsibility and duties of the one position.

Job vacancy

A job vacancy is an unfilled job that an employer intends to fill either immediately or in the near future. A job vacancy is considered to exist if an employer has taken concrete steps to find a suitable person to carry out a specific set of tasks and would have recruited (entered into a job contract with) such a person if she/he had been available.

Measures of job vacancies exclude:

- jobs not available for immediate filling;
- jobs for which no recruitment action has been taken;
- jobs of less than one day's duration;
- jobs only available to be filled by internal applicants within an organisation;
- jobs to be filled by employees returning from paid or unpaid leave, or after industrial disputes;
- vacancies for work to be carried out by contractors; and
- jobs for which a person has been appointed but has not yet commenced duty.

Labour Account

Labour Account added as a prefix to a data item (e.g. Labour Account main job and Labour Account secondary job) are indicative of statistical estimates made to address scope discrepancies between the principal data sources (such as the household Labour Force Survey) and the conceptual scope of the Australian Labour Account (the SNA 2008 production and residence boundaries). For example, the number of filled jobs reported in the Labour Force Survey is adjusted by adding estimates of jobs held by members of the permanent defence forces, child workers and short-term visa holders, and deducting an estimate of Australian residents employed by non-resident enterprises.

Labour Account employed persons

Labour Account employed persons is the sum of all persons engaged by Australian resident enterprises in economic activity within the System of National Accounts (SNA) production boundary.

Labour Account labour force

The Labour Force, also referred to as the currently economically active population, is the aggregate of employed and unemployed persons which gives a measure of the number of people contributing to, or actively looking and immediately available for, the supply of labour at a point in time. Labour Account labour force is the sum of Labour Account employed persons and Labour Force Survey unemployed persons.

Labour Account main job

Labour Account main job is the main activity carried out by an employed person. In the Australian context, this is the job in which most hours are usually worked. An employed person can only have one main job.

Labour Account secondary job

Labour Account secondary job is any job held by an employed person, other than main job. A person can have multiple secondary jobs.

Labour Force Survey employed persons

Labour Force Survey employed persons is the sum of all persons, defined as employed in line with ILO guidelines and in ABS official employment statistics ([Labour Statistics: Concepts, Sources and Methods \(<https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/B67163F76A9C2F4ECA257B63002928D0?OpenDocument>\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/B67163F76A9C2F4ECA257B63002928D0?OpenDocument), cat. no. 6102.0.55.001).

An employed person must meet the following criteria:

- be aged 15 years and over; and
- be usually resident in Australia (i.e. not a short term visitor intending to stay in Australia for less than 12 months in a 16 month period); and
- not be a member of the permanent defence forces of Australia, a foreign diplomat (or a dependant of a foreign diplomat) or a member of a foreign military force stationed in Australia (or their dependant); and
- meet at least one of the following criteria during the Labour Force Survey reference week:
 - worked for one hour or more without pay in a family business or on a farm (contributing family workers); or
 - worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (Employees, Owner-Managers of Incorporated Enterprises (OMIEs), Self-employed persons (Owner-Managers of Unincorporated Enterprises (OMUEs)) and contributing family workers); or
 - were owner managers who had a job, business or farm, but were not at work; or
 - had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job.

Members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependents) stationed in Australia are excluded from the Labour Force Survey.

Labour Force Survey main job

Labour Force Survey main job is the number of main jobs held by members of the usually resident civilian population aged 15 years and over. This is the official estimate of the number of main jobs derived from data collected in the household Labour Force Survey and published in [Labour Force, Australia \(<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0>\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0) (cat. no. 6202.0).

Labour Force Survey not in the labour force

Labour Force Survey not in the labour force comprises all persons aged 15 years and over who are neither employed nor unemployed. They include people who perform home duties or care for children, were retired, voluntarily inactive and those permanently unable to work. Not all people who are classified as not in the labour force are voluntarily economically inactive; some want to work but are classified as not in the labour force because they do not satisfy the criteria for unemployment (active job search and availability to start work).

Labour Force Survey secondary job

Labour Force Survey secondary job is the number of secondary jobs held by members of the usually resident civilian population aged 15 years and over. This is the official estimate of the number of secondary jobs derived from data collected in the household Labour Force Survey.

Labour Force Survey underemployed persons

Labour Force Survey underemployed persons reflects insufficient hours of work and where a person is willing and available to engage in additional hours of employment. International guidelines recognise underemployment in two forms: time related underemployment (persons who would prefer more hours) and inadequate employment situations, which represents insufficient use of skills and experience; inadequate income; and excessive hours.

Time related underemployed persons refer to part-time employed persons who wanted to work more hours and were available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey; or persons employed full-time who

worked part-time hours in the reference week for economic reasons. It is assumed that these people wanted to work full-time in the reference week and would have been available to do so.

For now, the Australian Labour Account will only include measures of time related underemployment.

Labour Force Survey underutilised persons

Labour Force Survey underutilised persons encapsulates both unemployment and underemployment, and provides more comprehensive information on the state of labour market and measures the extent to which all available labour force resources are not being fully used in the economy.

Labour Force Survey unemployed persons

Labour Force unemployed persons refers to people in the civilian usually resident population aged 15 years and over who are without work, actively seeking work and currently available for work. All three conditions must be satisfied for a person to be considered unemployed. For people waiting to start a new job they have already obtained, the active job search criterion is waived.

Labour income from self-employment

Labour income from self-employment refers to the employment related income received by household members from self-employment. It consists of all payments and benefits in cash, kind or services, which are received, over a given reference period, by individuals for themselves or in respect of their family members, by virtue of their involvement in current or former self-employment jobs.

Ordinary time hours paid for

Ordinary time hours paid for includes stand-by or reporting time hours which are part of standard hours of work, and hours of paid annual leave, paid sick leave and long service leave taken during the reference period. Ordinary time hours paid for at penalty rates (e.g. for shift work) are not converted to their ordinary time equivalent. This definition excludes any hours unpaid and overtime hours.

Owner-Managers of Incorporated Enterprises (OMIEs)

Owner-Managers of Incorporated Enterprises (OMIEs) are persons who operate their own incorporated enterprise with or without hiring employees.

Owner-Managers of Unincorporated Enterprises (OMUEs)

Self-employed (Owner-Managers of Unincorporated Enterprises (OMUEs)) are persons who operate their own unincorporated enterprise with or without hiring employees.

Paid overtime

Paid overtime, otherwise known as overtime hours paid for, represents hours paid for in excess of award, standard or agreed hours of work, at both standard and penalty rates.

Payroll Tax

Payroll tax includes taxes payable by the employer on the wage and salary bill.

Residual (Labour Payments quadrant)

Residual in the Labour Payments quadrant refers to the difference between 'total labour income' and 'total labour costs'. This is not a statistical discrepancy, and the two measures are similar but not conceptually identical.

Residual (Labour Volume quadrant)

Residual in the Labour Volume quadrant refers to the difference between 'hours paid for' and 'hours worked'. This is not defined as a statistical discrepancy as there remains a data gap in terms of unpaid hours worked.

This residual can provide an insight into labour market conditions. An industry in which the gap between hours paid for and hours worked is below the average for the economy as a whole is likely to be indicative of more casual employment arrangements, in which employees have less access to benefits such as paid recreation and sick leave. A reduction over time in the gap between hours paid for and hours worked could signal a tightening of labour market conditions or an increase in casualisation.

Secondary employment adjustment

The secondary employment adjustment calculates the number of employed people who hold secondary jobs in each industry. It is calculated by excluding multiple job holding within the same industry, from the total number of filled jobs.

Statistical discrepancy

The statistical discrepancy is equal to filled jobs from the demand side less filled jobs from the supply side, after addressing scope discrepancies. These two measures are, in principle, the same. The statistical discrepancy reflects measurement error associated with the source data.

Total jobs

Total jobs refers to all positions of employment that are currently filled, or are vacant and could be filled. It is the aggregate of the number of filled jobs and the number of job vacancies.

Total labour costs

Total labour costs refers to all costs incurred by the employer in the employment of labour. It is further classified into two sub components: Compensation of employees and other labour related costs to employers.

Total labour income

Total labour income refers to the employment related income received by households from all paid employment. It consists of all payments and benefits in cash, kind or services, which are received, over a given reference period, by individuals for themselves or in respect of their family members, by virtue of their involvement in current or former paid employment jobs.

Wages and salaries

Wages and salaries (internationally referred to as earnings) relates to regular and irregular remuneration in cash and in kind paid to employees for time worked or work done together with remuneration for time not worked, such as annual vacation and other paid leave or holidays (ASNA 11.8).

Wages and salaries is further classified into two categories: wages and salaries paid in cash, and wages and salaries paid in kind. Conceptually wages and salaries excludes severance and termination pay, which, along with, sick leave payments; and payments for other forms of leave other than annual leave and long service leave should be classified as employers' social contributions as recommended by the SNA 2008. However, as data providers in Australia are unable to consistently differentiate between these various types of severance and leave payments, and other wage and salary payments, these payments are included in the Australian System of National Account estimates of wages and salaries. Fringe benefits taxes which are payable on income in kind provided to employees are included as part of wages and salaries and also included in income taxes payable by households.

Payments to members of the defence forces consist of salaries and allowances, attendance pay and the value of food, clothing, and travel supplied to permanent members, reserves and cadets. Deferred pay is included but war gratuities, which are regarded as social assistance benefits, are not.

Wages and salaries also include changes in provisions for future employee entitlements,

such as provisions for long service leave.

Wages and salaries paid include the values of any social contributions (e.g. to superannuation funds), income taxes, etc., payable by the employee even if withheld by the employer for administrative convenience, such as direct payment to a superannuation fund or the Australian Taxation Office (ATO). Also included are penalty payments (e.g. overtime, hazardous work allowances), supplementary allowances such as housing and meal allowances (unless paid as social benefits), holiday pay, payment while on sick leave, bonuses, and commissions, tips and gratuities paid directly to the employee by a third party.

Wages and salaries paid in kind

Wages and Salaries paid in kind covers the cost to an employer of goods and services which are provided to the employee, or to another member of the employee's household, free of charge or at a substantial discount, and which are clearly of benefit to the employee as a consumer. Examples include meals, housing, uniforms that can be worn away from work, vehicles available for personal use, goods and services produced by the employer enterprise, recreational facilities, transportation, car parking, child care, low interest loans and stock options. Some of these benefits may appear more like intermediate consumption, but are included in compensation of employees because, even though they are paid to attract employees, they are benefits that employees would often have to provide themselves.

Quality declaration - summary

Institutional environment

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see [ABS Institutional Environment](https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!OpenDocument) (<https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!OpenDocument>).

Relevance

This publication contains experimental estimates of the Australian Labour Account. The Australian Labour Account provides a conceptual framework through which existing labour market data from different sources can be confronted and integrated, with the aim of producing a coherent and consistent set of aggregate labour market statistics.

The Australian Labour Account is macro-economic in scope, building on the International Labour Organisation (ILO) fundamentals and expanding them to ensure consistency with the Australian System of National Accounts (ASNA). It aims to extend the analytical capacity of national accounts data by providing a labour-specific lens.

The Australian Labour Account produces a set of statistical tables of employment related data that are consistent with the ASNA.

Timeliness

It is intended that future releases of the annual Australian Labour Account will be published within twelve months of the end of the reference period.

Accuracy

Different data sources have been used in compiling the four quadrants of the Australian Labour Account. In general, the same data sources have been used to compile both quarterly and annual labour account estimates. Quarterly survey estimates have also been benchmarked to annual survey estimates where possible.

Australian Labour Account data at an industry level are derived where possible from data classified by industry reported in both business and household surveys. Where Australian Labour Account data at an industry level are not reported in surveys, the industry detail has been modelled using alternative sources.

The Australian Labour Account uses both published and unpublished data from various sources. These are detailed in Appendix 2 of the [Concepts, Sources and Methods](https://www.abs.gov.au/AUSSSTATS/abs@.nsf/Latestproducts/6150.0Appendix2Oct%202019?opendocument&tabname=Notes&prodno=6150.0&issue=Oct%202019&num=&view=) (<https://www.abs.gov.au/AUSSSTATS/abs@.nsf/Latestproducts/6150.0Appendix2Oct%202019?opendocument&tabname=Notes&prodno=6150.0&issue=Oct%202019&num=&view=>) manual. Where unpublished data sources are referenced, for example using an ABS catalogue number, this is intended to provide background information relating to the underlying survey data only. It is not intended that users be able to fully replicate published Australian Labour Account data.

After adjusting for conceptual and scope differences between data sources, a statistical discrepancy remains between the number of filled jobs as reported by businesses and the number of filled jobs as reported by households.

These discrepancies represent the cumulative impact of data source error, including survey error, and modelling error. Survey error includes both sampling error and non-sampling error. Sampling error is the predictable variability arising from the use of samples, rather than a complete enumeration of the populations of enterprises and households. Non-sampling error is all other error in the estimate, and includes error arising from the reliability of the survey population and related benchmark data and error made by respondents in reporting data. Further information on these issues can be found in the [Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0>) manual.

Coherence

There are currently no international standards regarding the production of a labour account, however a four step process has been documented by the ILO and was followed (to varying degrees) by the National Statistical Organisations in Denmark, the Netherlands and Switzerland in compiling their own labour accounts. The ILO process has been used as a guide in compiling the Australian Labour Account.

The ILO describes two approaches to compiling a labour account: a cross-sectional approach involving confrontation and reconciliation of key labour market measures, and a longitudinal approach which incorporates changes to population and labour force via births, deaths, and net migration, and includes measures such as duration of employment. The Australian Labour Account focuses on the cross-sectional approach (since this is the approach that supports data confrontation and reconciliation), and also provides a time-series dimension.

The development of an annual Australian Labour Account, and in particular a future quarterly labour account dis-aggregated by industry division, provides an opportunity to significantly improve the quality of aggregates such as the number of jobs occupied within each industry, measures of hours worked, and labour productivity growth.

Interpretability

Contained within this release are Data Cubes. A detailed Concepts, Sources and Methods manual, Explanatory Notes and a Glossary are also included providing information on the terminology, classifications and other technical aspects associated with these statistics.

- [Australian Labour Account: Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6150.0>) (cat. no. 6150.0)

Data access

Experimental Estimates for the Australian Labour Account, 2010–11 to 2015–16 (cat no. 6150.0.55.001) is released electronically via the ABS website as Data Cubes in spreadsheet format.

The ABS welcomes comments from users on the new methodologies and the usefulness of the resulting estimates for their analytical purposes. If you are interested in contributing to the ABS review, please contact Household Income and Labour Market director on 02 6252 7988 or labour.statistics@abs.gov.au.

Abbreviations

Show all

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ADF	Australian Defence Force
ANZSIC	Australian New Zealand Standard Industry Classification
ASNA	Australian System of National Accounts
BI	Benchmark Indicator
DoE	Department of Employment
EAS	Economic Activity Survey
EEH	Survey of Employee Earnings and Hours
EG	Enterprise Group
ERP	Estimated Resident Population
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GMI	Gross Mixed Income
GVA	Gross Value Added
ICLS	International Convention of Labour Statisticians
ILO	International Labour Organisation
IMF	International Monetary Fund
IOPC	Input-Output Product Classification
ISIC	International Standard Industrial Classification

JVS	Job Vacancy Survey
LE	Legal Entity
LEED	Linked Employer-Employee Dataset
NAB	National Accounts Branch (ABS)
NOM	Net Overseas Migration
OAD	Overseas Arrivals and Departures
OMIE	Owner Managers of Incorporated Enterprises
OMUE	Owner Managers of Unincorporated Enterprises
QBIS	Quarterly Business Indicators Survey
SEASABS	SEASonal analysis, ABS standards
SEE	Survey of Employment and Earnings
SISCA	Standard Industry Sector Classification of Australia
SNA	System of National Accounts (United Nations)
SUPC	Supply and Use Product Classification
TAU	Type of Activity Unit